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NEW AMERICAN SPIDERS WITH NOTES ON OTHER SPECIES

By W. J. GERTSCH

CLUBIONIDAE

PHRUROLITHUS C. Koch

In 1921, Dr. R. V. Chamberlin (Canadian Entomologist, LIII, pp. 69–70) separated the American species referred to the genus *Phrurolithus* into two groups. For one of these was erected the new genus *Phruronellus*, with *P. formica* Banks as the type, a species which is characterized by its general dark color, the presence of a conspicuous femoral apophysis and a furcate tibial apophysis on the male palpus. In the other group were left such species as *P. alarius*, *palustris*, and *minutus*, in which the general color is much lighter, the femur of the male palpus is provided with a tubercular nodule, and the tibia of the palpus armed with a single retrolateral apophysis. A study of the genotype, the European *Phrurolithus festivus* C. Koch, shows that the dark forms referred to *Phruronellus* are in all respects congeneric and that, if a new genus were needed, it should have been applied to the forms of which *alarius* is an example. While it is true that the characters on which these groups are based are in no way intergrading, the close agreement in general structure seems to make a new genus unnecessary.

The genus *Phrurolithus* in its broadest sense bids fair to be a large one in the United States. With the addition of seven new species below, the total number of species known from the region is now thirty-one. The male of *P. britcheri* Petrunkevitch is figured for the first time. The types of the new species described below are in the collection of The American Museum of Natural History.

Phrurolithus apertus, new species

Figures, 1, 2, and 3

MALE.—Total length, 1.69 mm. Carapace, 0.83 mm. long, 0.71 mm. wide.

Integument of the carapace light brown, glabrous, darkest in the eye region, with a median irregular, quadrangular black maculation from which extend forward four dark streaks to the posterior eye row. Sides with dark streaks and markings. Sternum, mouth parts and legs concolorous, a lighter brown than the carapace. Legs provided with short black hairs. Abdomen strongly sclerotized, glabrous, black

except for a transverse pale band near the middle. Sides of the abdomen mainly black, the venter and spinnerets white.

First row of eyes slightly narrower than the second, procurved, the medians separated by scarcely a radius, two-thirds as large as and subcontiguous with the laterals. Second row of eyes straight, the eyes subequal, the oval medians separated by half a radius, subcontiguous with the laterals. Median ocular quadrangle as long as broad, the anterior medians slightly smaller. Clypeus equal in height to about a radius of the anterior medians.

Carapace somewhat longer than broad, convex, the sutures obsolete. Pars cephalica at the second eye row five-eighths as broad as the carapace. Sternum as broad as long. Labium broader than long, half as high as the endites.

Tibia of the first two pairs of legs with six pairs, the metatarsi with three pairs of strong ventral spines. First leg: femur, 0.75 mm., patella, 0.30 mm., tibia, 0.72 mm., metatarsus, 0.67 mm., tarsus, 0.35 mm. long. Femur of first leg incrassated above at the base, the prolateral surface with two strong spines. Fourth leg: femur, 0.71 mm., patella, 0.29 mm., tibia, 0.62 mm., metatarsus, 0.63 mm., tarsus, 0.41 mm. long. Third and fourth legs unspined. Palpus, figures 1 and 2, the femoral apophysis near the middle of the joint.

FEMALE.—Total length, 1.75 mm. Carapace, 0.83 mm. long, 0.69 mm. wide.

Coloration as in the male, but the abdomen not so strongly sclerotized, clothed with gray hairs, the dorsum mainly black, variegated by numerous small white markings, the caudal end with a white maculation. Spinnerets white, ringed with black. Venter white.

Structure as in the male. Eyes as in the male, but the posterior medians distinctly separated from the laterals by half a radius, the medians a radius apart. Legs spined as in the male. First leg: femur, 0.66 mm.,patella, 0.30 mm., tibia, 0.66 mm., metatarsus, 0.59 mm., tarsus, 0.30 mm. long. Last two pairs of legs without spines. Fourth leg: femur, 0.71 mm., patella, 0.30 mm., tibia, 0.63 mm., metatarsus, 0.66 mm., tarsus, 0.41 mm. long. Epigynum, figure 3.

TYPE LOCALITY.—Female holotype, male allotype, and female paratype from fifteen miles southwest of Harlingen, Texas, November 17, 1934 (S. Mulaik).

This species differs from all the others in the genus in having a single large atrial opening, rather than the conventional two more or less well-separated apertures. The long black embolus which originates on the retrolateral margin of the bulb is distinctive for the male.

Phrurolithus delicatulus, new species

Figures 4, 5, and 6

MALE.—Total length, 2.00 mm. Carapace, 0.94 mm. long, 0.80 mm. wide.

Carapace dark brown, with an inconspicuous median quadrangular maculation and a few side streaks. Sternum infuscated on the margins. Mouth parts and legs yellow to light brown. All femora and tibiae with lateral black stripes, those on the first two femora broadened to cover most of the joint. Palpus infuscated. Abdomen glistening, glabrous, the dorsum with a pair of basal light spots and a transverse band. Venter pale. Spinnerets ringed in black.

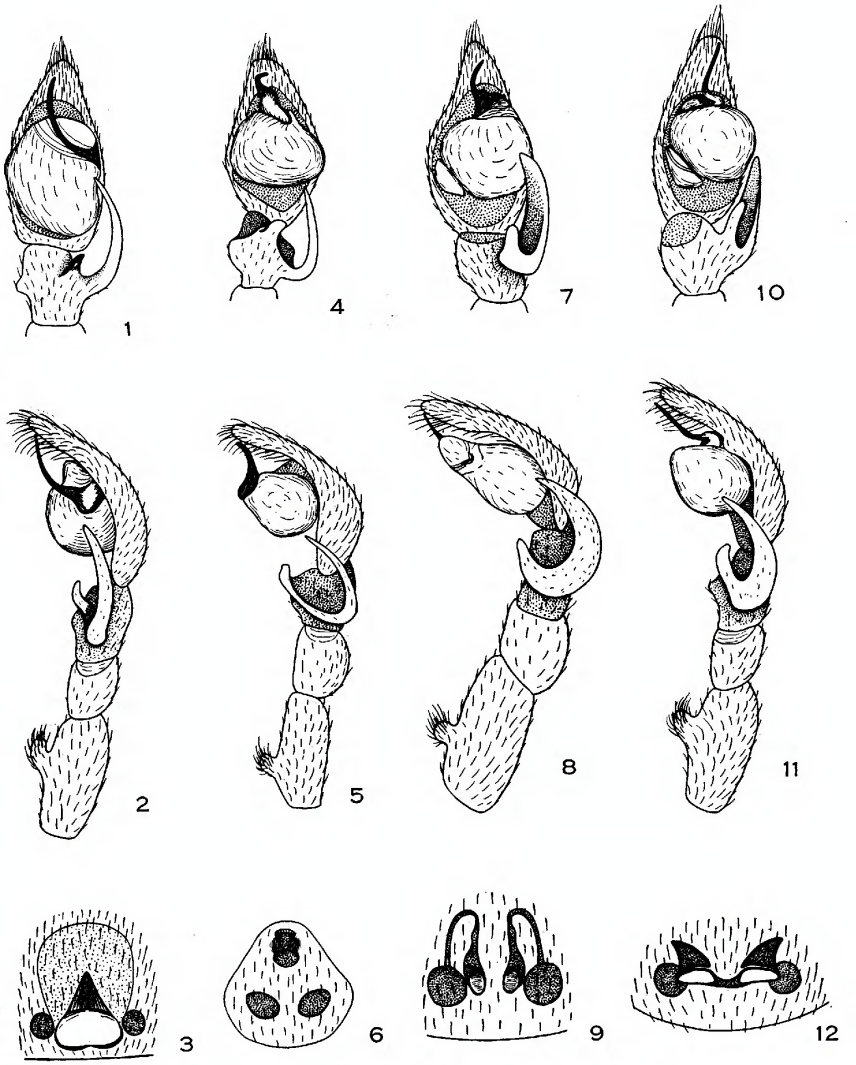

Fig. 1. *Phrurolithus apertus*, new species, left palpus, ventral view.
Fig. 2. *Phrurolithus apertus*, new species, left palpus, retrolateral view.
Fig. 3. *Phrurolithus apertus*, new species, epigynum.
Fig. 4. *Phrurolithus delicatulus*, new species, left palpus, ventral view.
Fig. 5. *Phrurolithus delicatulus*, new species, left palpus, retrolateral view.
Fig. 6. *Phrurolithus delicatulus*, new species, epigynum.
Fig. 7. *Phrurolithus britcheri* Petrunkevitch, left palpus, ventral view.
Fig. 8. *Phrurolithus britcheri* Petrunkevitch, left palpus, retrolateral view.
Fig. 9. *Phrurolithus callidus*, new species, epigynum.
Fig. 10. *Phrurolithus camawhitae*, new species, left palpus, ventral view.
Fig. 11. *Phrurolithus camawhitae*, new species, left palpus, retrolateral view.
Fig. 12. *Phrurolithus camawhitae*, new species, epigynum.

Carapace rather strongly convex, the sides well rounded, the cephalic part very weakly produced, the sutures obsolete. Sternum as broad as long, the posterior coxae separated by nearly their length. Labium a little broader than long, more than half as high as the endites.

Eyes of the first row scarcely narrower than the second, procurved, the medians separated by a radius, subcontiguous with the larger laterals. Posterior row of eyes practically straight, the oval medians separated by a radius of their short axis, equidistant from the subequal laterals. Median ocular quadrangle as broad as long, equally wide in front as behind, the eyes subequal. Clypeus twice as high as the diameter of an anterior median eye.

Tibiae of the first two pairs of legs armed with five pairs of spines, the metatarsi with four pairs of ventral spines. First leg: femur, 0.68 mm., patella, 0.27 mm., tibia, 0.66 mm., metatarsus, 0.50 mm., tarsus, 0.35 mm. long. Third and fourth legs unspined. Fourth leg: femur, 0.68 mm., patella, 0.30 mm., tibia, 0.66 mm., metatarsus, 0.68 mm., tarsus, 0.44 mm long. Femur of palpus with a stout knoblike apophysis, armed with stiff hairs, below near the base. Palpus, figures 4 and 5.

FEMALE.—Total length, 1.85 mm. Carapace, 0.84 mm. long, 0.66 mm. wide.

Color and structure essentially as in the male. Clypeus as high as one and one-half times the diameter of an anterior median eye. First leg: femur, 0.60 mm., patella, 0.25 mm., tibia, 0.53 mm., metatarsus, 0.49 mm., tarsus, 0.26 mm. long. First and second tibiae armed with five pairs, the metatarsi with three pairs of strong ventral spines. Last two legs unarmed. Fourth leg: femur, 0.66 mm., patella, 0.30 mm., tibia, 0.59 mm., metatarsus, 0.61 mm., tarsus, 0.38 mm. long. Epigynum, figure 6.

TYPE LOCALITY.—Male holotype, female allotype and paratypes from Montvale Springs, Tennessee, March 18, 1929 (W. M. Barrows).

Undoubtedly this species has been confused with *Phrurolithus similis* Banks, which it closely resembles. It is considerably smaller than that species, has the retrolateral apophysis of the tibia of the male palpus much more slender, and the embolus distinctly hooked at the end.

Phrurolithus britcheri Petrunkevitch

Figures 7 and 8

Phrurolithus britcheri PETRUNKEVITCH, 1910, Annals New York Acad. Sci., XIX, p. 217, Pl. XXII, fig. 23.

RECORDS.—Woods Hole, Mass., July 24, 1901, females (Britcher). Onondaga County, New York, two males (Britcher).

Phrurolithus camawhitae, new species

Figures 10, 11, and 12

MALE.—Total length, 2.46 mm. Carapace, 1.13 mm. long, 0.91 mm. wide.

Integument of the carapace light to dark brown, the margins with an inconspicuous narrow black seam, the sides and the striae with darker streaks and markings. Sternum, mouth parts and first coxae infuscated. First two femora mainly dark brown, the remainder of those legs and all the joints of the last two pairs dull yellow.

Carapace nearly glabrous, the few dark hairs inconspicuous. Legs with fine black hairs. Abdomen strongly sclerotized above, dark brown to black, the venter paler. Spinnerets yellow, ringed in black.

Carapace convex, evenly rounded above, narrowed in the head region, the sutures virtually obsolete. Sternum longer than broad (16/15), broadest between the second coxae, narrowly rounded behind and separating the posterior coxae by half their width. Labium about as long as broad.

First row of eyes seven-eighths as broad as the second row, procurved, straight as viewed from above, the medians two-thirds as large as the laterals, separated by a radius, half as far from the laterals. Posterior eye row straight, the oval medians separated by a radius, as far from the slightly larger laterals. Median ocular quadrangle as broad as long, the eyes subequal. Clypeus as high as the diameter of an anterior median eye.

Tibia of the first leg with five (or six) pairs, the metatarsus with three pairs of strong ventral spines, the last pair not apical. Second legs shorter, spined as the first. Last leg without spines. First leg: femur, 1.00 mm., patella, 0.41 mm., tibia, 1.00 mm., metatarsus, 0.75 mm., tarsus, 0.45 mm. long. Fourth leg: femur, 0.95 mm., patella, 0.40 mm., tibia, 0.89 mm., metatarsus, 0.89 mm., tarsus, 0.56 mm. long. Palpus with a stout apophysis near the middle of the joint beneath the femur. Tibial apophysis and details of palpus, figures 10 and 11.

FEMALE.—Total length, 2.75 mm. Carapace, 1.00 mm. long, 0.80 mm. wide.

Color as in the male. Abdomen not glistening or strongly sclerotized above as in the male, almost uniform black, with a small white maculation just above the spinnerets, the venter gray. Structure essentially as in the male, the carapace proportionately longer. Oval median eyes of the posterior row nearer each other than the laterals. First leg: femur, 0.80 mm., patella, 0.35 mm., tibia, 0.80 mm., metatarsus, 0.69 mm., tarsus, 0.44 mm. long. Epigynum with the receptacles separated by about twice their diameter, the atriobursal orifice at the inner side of each receptacle.

TYPE LOCALITY.—Male holotype, female allotype and paratypes from Camp Mary White, Otero County, New Mexico, July and August, 1934 (S. Mulaik). Paratypes from Bear Creek Canyon, twenty miles southeast of Cloudcroft, Otero County, New Mexico, July 18–21, 1934 (S. Mulaik).

This species is closely related to *Phrurolithus pictus* and *pelvicolens* Chamberlin and Gertsch but has the femoral apophysis at about the middle of the joint. The female is easily separated by the position of the atriobursal orifices which are on a transverse line with the receptacles.

Phrurolithus callidus, new species

Figure 9

FEMALE.—Total length, 1.75 mm. Carapace, 0.80 mm. long, 0.66 mm. wide.

Integument of the carapace light brown, glabrous, the eyes enclosing a black area, the dorsum provided with a definite dorsal black maculation as in *apertus* but the whole carapace irregularly infuscated so as to disguise the pattern. Sternum infuscated on the margins, otherwise light brown, concolorous with the mouth parts

and the unmarked legs. Abdomen as in the female of *apertus* but with a broad dorsal white band. Venter light yellow.

Carapace convex, the sutures obsolete. Sternum as broad as long, the fourth coxae separated by about their length. Labium broader than long, half as high as the endites. First and second tibiae with five pairs, the metatarsi with three pairs of long ventral spines. First femur with two strong prolateral spines. First leg: femur, 0.70 mm., patella, 0.29 mm., tibia, 0.71 mm., metatarsus, 0.66 mm., tarsus, 0.41 mm. long. Last two pairs of legs without spines. Fourth leg: femur, 0.75 mm., patella, 0.30 mm. tibia, 0.70 mm., metatarsus, 0.75 mm., tarsus, 0.41 mm. long. Epigynum, figure 9.

Eyes of the first row slightly narrower than the second, procurved, the medians separated by a radius, half as far from the larger laterals. Second row of eyes straight, the oval medians more strongly divergent than in *apertus*, separated by one-third of their long diameter, equally distant from the subequal laterals. Median ocular quadrangle as long as broad, slightly narrower in front, the anterior medians smaller. Clypeus equal in height to half the diameter of an anterior median eye.

TYPE LOCALITY.—Female holotype from ten miles southeast of Edinburg, Texas, October 20, 1934 (S. Mulaik). Female paratype from Harlingen, Texas, November 17, 1934 (S. Mulaik).

This tiny species is similar in color and structure to *Phrurolithus apertus*, new species, but differs in having two distinct atriobursal orifices, and in the details of the eyes.

Phrurolithus fratrellus, new species

Figure 21

FEMALE.—Total length, 2.02 mm. Carapace, 0.77 mm. long, 0.62 mm. wide.

Integument of the carapace dull yellow, clothed sparsely with short black hairs, the eyes enclosing a black field but otherwise without markings. Sternum, mouth parts and legs concolorous with the carapace, unmarked, sparsely covered with short, inconspicuous black hairs. Dorsum of the abdomen white to light yellow, the venter unmarked, the dorsum gray at the base, darker caudally, with three light chevrons at the middle and a white maculation just above the white spinnerets.

Carapace longer than broad, convex, the sides moderately rounded, the pars cephalica about half as broad as the greatest width. Cephalic sutures obsolete. Sternum as broad as long. Labium a little broader than long, half as high as the endites.

First row of eyes slightly narrower than the second, weakly procurved as seen from in front, the medians separated by one-half their radius, subcontiguous with the subequal, oval laterals. Second row of eyes very weakly procurved, the oval medians scarcely separated (about one-sixth their diameter), about as far from the slightly smaller laterals. Median ocular quadrangle as broad as long, the anterior eyes slightly smaller. Clypeus equal in height to one-third the diameter of an anterior median eye.

Tibia of the first leg with five pairs, the metatarsus with four pairs of strong ventral spines. First femur with two prolateral spines in the distal half of the joint. Second leg as the first but lacking the prolaterals on the femur. Last two legs without spines. First leg: femur, 0.64 mm., patella, 0.30 mm., tibia, 0.62 mm., metatarsus,

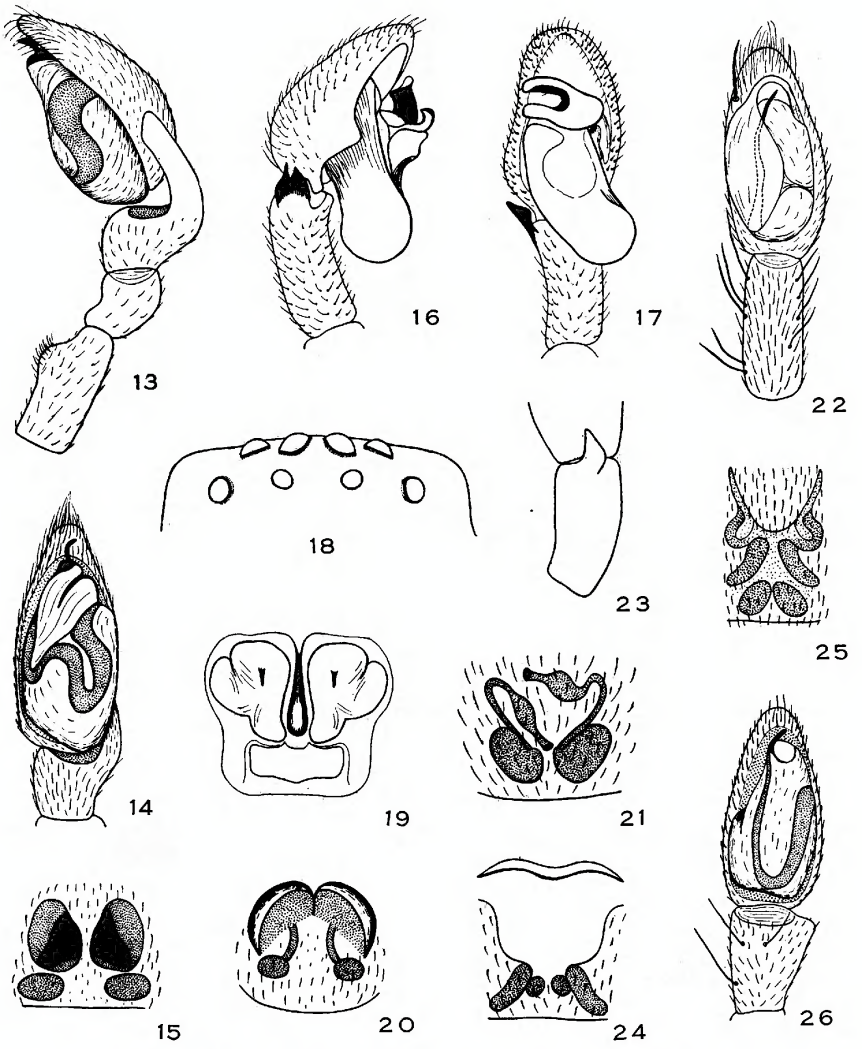

Fig. 13. *Phrurolithus wallacei*, new species, left palpus, ventral view.
Fig. 14. *Phrurolithus wallacei*, new species, left palpus, retrolateral view.
Fig. 15. *Phrurolithus wallacei*, new species, epigynum.
Fig. 16. *Lauricius hemicloeinus* Simon, right palpus, retrolateral view.
Fig. 17. *Lauricius hemicloeinus* Simon, right palpus, ventral view.
Fig. 18. *Lauricius hemicloeinus* Simon, eyes from above.
Fig. 19. *Lauricius hemicloeinus* Simon, epigynum.
Fig. 20. *Phrurolithus emertoni*, new species, epigynum.
Fig. 21. *Phrurolithus fratrellus*, new species, epigynum.
Fig. 22. *Clubiona mulaiki*, new species, left palpus, ventral view.
Fig. 23. *Clubiona mulaiki*, new species, tibia of left palpus, retrolateral view.
Fig. 24. *Clubiona mulaiki*, new species, epigynum.
Fig. 25. *Clubiona dorotheae*, new species, epigynum.
Fig. 26. *Apostenus pacificus*, new species, left palpus, ventral view.

0.60 mm., tibia, 0.34 mm. long. Fourth leg: femur, 0.73 mm., patella, 0.31 mm., tibia, 0.60 mm., metatarsus, 0.71 mm., tarsus, 0.50 mm. long. Epigynum, figure 21.

TYPE LOCALITY.—Female holotype from Belton, Texas, September 1, 1933 (W. Ivie).

This tiny form is closely related to *Phrurolithus apertus* and *callidus* but has the eyes of the first row subequal; it differs considerably in characters of the epigynum as illustrated and completely lacks the well-marked black pattern on the carapace of the other species.

Phrurolithus wallacei, new species

Figures 13, 14, and 15

MALE.—Total length, 2.30 mm. Carapace, 1.12 mm. long, 0.87 mm. wide.

Integument of the carapace light brown, the eye region dark, the sides with a marginal black seam, the dorsum with two black bands, the intervals between these bands forming a pale longitudinal central stripe as broad as the last eye row and submarginal pale bands half as broad as the dark stripes. Sternum light yellow, the mouth parts and legs light brown. Legs with narrow black bands, the first tibia mainly black. Dorsum of abdomen strongly sclerotized, shining, the light base marked with distinct chevrons. Venter pale.

Carapace longer than broad, the cephalic portion at the second eye row about three-fifths the greatest width of the carapace. Carapace convex, the longitudinal suture present. Sternum slightly longer than broad (15/14), the sides weakly rounded, bluntly pointed behind where the fourth coxae are separated by their width. Labium three-fifths as long as broad, about half as high as the endites.

Eyes of the first row very slightly narrower than the second, procurved, the medians separated by one-third their diameter, subcontiguous with the slightly larger laterals. Second row of eyes very weakly procurved, the medians one-fifth their diameter apart, twice as far from the subequal laterals. Median ocular quadrangle four-fifths as broad as long, slightly broader in front, the eyes subequal. Clypeus scarcely as high as the diameter of an anterior median eye.

Tibia of the first leg with seven pairs, the metatarsus with four pairs of long ventral spines. Tibia of the second leg with six pairs, the metatarsus with three pairs of long ventral spines. First femur slightly incrassated above at the base, the prolateral surface with two subdistal spines. All femora with a single dorsal spine near the base. Last two pairs of legs unarmed. First leg: femur, 1.21 mm., patella, 0.50 0.50 mm., tibia, 1.28 mm., metatarsus, 1.12 mm., tarsus, 0.45 mm. long. Palpus with a stout tubercle beneath the femur near the distal end. Tibia with a single broad apophysis (Figs. 13 and 14).

FEMALE.—Total length, 2.50 mm. Carapace, 1.12 mm. long, 0.93 mm. wide. Color and structure as in the male, the oval eyes of the posterior row equidistant, placed more obliquely, the median ocular quadrangle equally as broad behind as in front. Epigynum, figure 15.

TYPE LOCALITY.—Male holotype and paratypes from Alachua County, Florida, October 31, 1933 (H. K. Wallace). Female allotype from Benson Springs, Volusia County, Florida, October 11, 1933 (H. K. Wallace).

This species is closely allied to *Phrurolithus umbratilis* Crosby and Bishop but lacks the median dark maculation on the sternum. The embolus of the palpus of *P. wallacei* is distinctly curved as seen from the lateral aspect and the tibial apophysis is somewhat shorter. The first leg is proportionately much longer, the tibia exceeding the carapace in length (5/4), the same joint in *umbratilis* being slightly shorter than the carapace (8/9).

Phrurolithus emertoni, new species

Figure 20

FEMALE.—Total length, 3.25 mm. Carapace, 1.33 mm. long, 1.06 mm. wide.

Integument of the carapace dirty yellow, the margins with a narrow dark seam, the dorsum with indistinct dark markings. Sternum, mouth parts and coxae concolorous with the carapace. Legs infuscated at the base of the first femora, otherwise dirty yellow. Abdomen grayish white to yellow, without markings. Carapace moderately convex, longer than broad, constricted in the head portion, the sides moderately rounded, the sutures weakly indicated. Sternum longer than broad (9/8). Labium two-thirds as long as broad, scarcely half as high as the endites.

First row of eyes as broad as the second, procurved, the medians four-fifths as large as the laterals, separated by a radius, subcontiguous with the laterals. Eyes of the second row very slightly procurved, the oval medians separated by a radius, half as far from the slightly larger laterals. Median ocular quadrangle longer than broad (6/5), as wide in front as behind, the anterior eyes slightly larger. Clypeus as high as two-thirds the diameter of an anterior median eye.

Tibia of the first two legs with seven pairs of stout spines that are about half as long as the joint, the metatarsi with three ventral pairs. Tibia and patella of the first leg as long as the carapace. Epigynum (Fig. 20) differing from the other species in presenting a shallowly excavated depression which leads to two large dark-colored semilunar orifices. Receptacles separated by twice their diameter.

TYPE LOCALITY.—Female holotype from Atlanta, Georgia, May, 1899 (J. H. Emerton).

The single female is in very poor condition and has lost any distinctive color markings that might have been present. However, the epigynum is quite unlike that organ in the known species of the genus.

APOSTENUS Westring

Apostenus pacificus, new species

Figure 26

MALE.—Total length, 3.35 mm. Carapace, 1.50 mm. long, 1.25 mm. wide.

Integument of the carapace uniform light brown, without markings, sparsely covered with inconspicuous black hairs. Eyes ringed in black. Clypeal margin with four long spines. Sternum yellowish brown, the mouth parts and legs darker, concolorous with the carapace. Integument of the abdomen gray to white, the venter light, the sides infuscated, the dorsum with a strongly sclerotized, yellowish-brown scutum that incompletely covers the upper surface.

Carapace slightly longer than broad, convex, broadest between the second and third coxae, weakly constricted to delimit the head portion, the cephalic sutures obsolete, the median longitudinal suture present. Sternum slightly longer than broad (22/21), broadest at the second coxae, truncated in front, rounded behind between the fourth coxae, which are separated by their width. Labium broader than long (18/13), half as high as the endites. Coxae subequal in length.

Eyes of the first row about four-fifths as broad as the second row, very weakly procurved as viewed from the front, the medians separated by scarcely a radius, subcontiguous with the larger medians. Eyes of the second row slightly recurved, the oval medians separated by the diameter of their short axis, as far from the subequal laterals. Median ocular quadrangle as long as broad, a little narrower in front, the anterior eyes slightly smaller. Clypeus equal in height to the diameter of an anterior median eye.

Legs evenly clothed with short, inconspicuous black hairs. First femur with two prolateral spines in the distal half and three dorsals. First tibia with six pairs and the metatarsus with three pairs of long ventral spines, the last pair not apical. Second leg as the first but lacking the prolaterals on the femur and having five pairs beneath the tibia. Third and fourth pairs of legs with three dorsal spines on the femora, three dorsal, prolateral and retrolateral and three pairs of ventral spines on the tibiae; a median, prolateral and retrolateral and two basal ventral pairs on the metatarsi. First leg: femur, 1.21 mm., patella, 0.59 mm., tibia, 1.15 mm., metatarsus, 0.92 mm., tarsus, 0.66 mm. long. Fourth leg: femur, 1.15 mm., patella, 0.57 mm., tibia, 1.02 mm., metatarsus, 1.15 mm., tarsus, 0.66 mm. long. Palpus, figure 26.

TYPE LOCALITY.—Male holotype and paratype from Los Angeles, California, November and December (G. Grant).

This is a smaller species than *Apostenus acutus* Emerton, and the tibial apophysis is much less strongly developed. The details of the bulb also present differences that are more easily shown in the figure than given verbal description. Neither of these species seems to be congeneric with *Apostenus cinctipes* Banks, described from Washington State, but both agree well with the genotype, *A. fuscus* Westring.

AGROECA Westring

Agroeca trivittata (Keyserling)

Hilke trivittata KEYSERLING, 1887, Verh. k. k. Zool.-Bot. Gesell. Wien, XXXVI, p. 444, Pl. VI, fig. 17.

The genus *Hilke* is clearly a synonym of *Agroeca*.

Agroeca oaba (Chamberlin)

Herpyllus oabus CHAMBERLIN, 1919, Annals Ent. Soc. America, XII, p. 246, Pl. XVI, fig. 6.

Agroeca hesperia BANKS, 1921, Proc. California Acad. Sci., (4) XI, p. 101, Fig. 4.

Rachodrassus flavus CHAMBERLIN AND WOODBURY, 1929, Proc. Biol. Soc. Washington, p. 134, Pl. II, fig. 2. (The legends are reversed on the plates.)

This species is found in the southwestern States from Utah and Arizona to California. It is probably identical with *trivittata*.

LAURICIUS Simon

Lauricius hemicloeinus Simon

Figures 16, 17, 18, and 19

Lauricius hemicloeinus SIMON, 1888, Ann. Soc. Entom. France, (6) VIII, p. 208.—CAMBRIDGE, 1900, 'Biologia Centrali-Americana,' Araneidea, II, p. 91, Pl. VII, fig. 1.

This large species, originally described from Mexico from the female, has been reported from Arizona and New Mexico.

SYRISCA Simon

Syrisca affinis (Banks)

Figures 31, 32, and 33

Teminius affinis BANKS, 1897, Canadian Entomologist, XXIX, p. 193.

This species has been reported only from Texas, where it appears to be common. The figures of the male palpus are from a male taken at Edinburg, Texas, by Mr. Stanley Mulaik. A figure of the epigynum of *Syrisca insularis* (Lucas), a Cuban species, is included for comparison (Fig. 34).

CLUBIONA Latreille

Clubiona mulaiki, new species

Figures 22, 23, and 24

MALE.—Total length, 4.20 mm. Carapace, 2.00 mm. long, 1.50 mm. wide.

Carapace and appendages mainly pale yellow, the eye region darker, the chelicerae and mouth parts light brown. Abdomen yellow, the dorsum with four rows of black spots in the caudal half.

Carapace longer than broad, convex, the head portion two-thirds as wide as the greatest width, sparsely armed with black hairs. Clypeal margin with seven principal long marginal spines, the median one between the anterior median eyes. Head sutures obsolete, the median longitudinal suture a linelike groove. Sternum longer than broad (25/19). Labium longer than broad (6/5), half as high as the endites.

Eyes of the first row narrower than the second (7/9), very weakly procurved as viewed from in front, the medians separated by their radius, a little nearer the slightly larger laterals. Second row of eyes very weakly procurved, the medians scarcely one and one-half times their diameter apart, a little nearer the subequal laterals. Median ocular quadrangle broader than long (9/7), narrower in front in the same ratio. Clypeus scarcely one-fourth as high as the diameter of an anterior median eye. Chelicerae with three small teeth on the lower margin.

Legs armed with stout black spines as follows. Femur of first leg with three dorsal and two prolateral spines. Tibia of first leg with three pairs and the metatarsus with a single basal pair of ventral spines. Second leg as the first but lacking the prolaterals on the femur. Femur of the third leg with three dorsal and one prolateral, the tibia

with one dorsal, two prolateral and retrolateral and three pairs of ventral spines; the metatarsus as the tibia but with an apical ring of spines and a single basal ventral pair. Fourth leg as the third but with three prolateral, retrolateral and three ventral pairs on the metatarsus. Femur and patella of the first leg as long as the carapace. Palpus similar to that of *Clubiona pallens* but lacking the small hook at the end of the tibial apophysis (Figs. 22 and 23).

FEMALE.—Total length, 4.12 mm. Color as in the male. Epigynum differing from that of *Clubiona pallens* in lacking a median finger-like appendage (Fig. 24).

TYPE LOCALITY.—Female holotype from seven miles east of Edinburg, Texas, February 8, 1935 (S. Mulaik). Male allotype from Edinburg, Texas, September, 1933 (S. Mulaik).

This is a much smaller species than *Clubiona pallens* Hentz but is closely related in most respects, the specific distinctions being in the details of the palpus and epigynum, which are figured.

Clubiona dorotheae, new species

Figure 25

FEMALE.—Total length, 3.25 mm. Carapace, 1.62 mm. long, 1.15 mm. wide.

Carapace mainly dirty white, with a linelike black streak from the posterior median eyes to the dorsal groove, the pars cephalica somewhat infuscated, the eye region darker. Chelicerae blackened. Labium, endites, and sternum infuscated, clothed with fine black hairs. Legs concolorous with the carapace, unmarked, clothed with fine black hairs and long spines. Dorsum of the abdomen gray, the sides darker, leaving a median longitudinal pale stripe that encloses five or six pairs of black spots. Venter gray.

Eyes of the first row narrower than the second (4/5), very weakly procurved, the medians separated by three-fourths their diameter, about half as far from the slightly larger laterals. Second row of eyes weakly procurved, the medians separated by one and one-half times their diameter, very slightly nearer the subequal laterals. Median ocular quadrangle broader than long (11/9), narrowed in front. Clypeus about one-fourth as high as the diameter of an anterior median eye. Chelicerae with three small teeth on the lower margin. Sternum longer than broad (32/25).

Legs armed with long black spines, the first leg missing, the second tibia with two ventral pairs, the last tibia with three ventral pairs of spines. Epigynum with a median finger-like appendage that is much broader than in *Clubiona pallida* Hentz.

TYPE LOCALITY.—Female holotype from Edinburg, Texas, September to December, 1933 (S. Mulaik).

The single female is in rather poor condition, lacking most of the legs, but the epigynum is clearly distinct from the other known forms. The specimen is abnormal in the possession of a well-developed additional diurnal eye which is situated some distance behind the right posterior lateral eye.

TRACHELAS L. Koch

Trachelas volutus, new species

Figures 27 and 28

MALE.—Total length, 5.10 mm. Carapace, 2.60 mm. long, 2.20 mm. wide.

Carapace and chelicerae dark reddish-brown, slightly roughened, clothed sparsely with inconspicuous scales, the eye region and clypeal margin with several short spines. Sternum, mouth parts, and first coxae lighter brown. First leg light reddish-brown, the other legs and their coxae light yellowish-brown, all clothed with fine black hairs, unspined. Dorsum of the abdomen strongly sclerotized, with a broad median pale reddish-brown band that encloses an inconspicuous black hastate marking at the base. Sides of the abdomen infuscated, the venter gray.

Carapace nearly as broad as long, slightly produced caudally, rounded in front, strongly convex, the median suture longitudinal, indistinct. Cephalic portion high, strongly convex, three-fourths as broad at the second eye row as the greatest width of the carapace (63/88), the cephalic sutures feebly distinct. Sternum longer than broad (55/43), the sides evenly rounded, the posterior coxae separated by one-third their width. Labium longer than broad (10/9), about two-thirds as high as the endites. Both margins of the cheliceral furrow with three teeth.

First row of eyes seven-tenths as broad as the second, slightly procurved, the medians separated by a radius, as far from the slightly smaller laterals. Second row of eyes five-sixths as broad as the carapace at the lateral eyes (50/65), strongly procurved, the medians separated by one and two-thirds their diameter, about two and one-half times their diameter from the slightly larger posterior lateral eyes. Median ocular quadrangle broader than long (10/8), narrowed in front in about the same ratio. Clypeus two-thirds as high as the diameter of an anterior lateral eye.

Legs 1234, the second and fourth pairs subequal, the first two pairs with rows of minute ventral spines. First leg: femur, 2.25 mm., patella, 1.10 mm., tibia, 1.75 mm., metatarsus, 1.60 mm., tarsus, 1.10 mm. long. Fourth leg: femur, 1.87 mm., patella, 0.87 mm., tibia, 1.60 mm., metatarsus, 1.81 mm., tarsus, 0.60 mm. long. Palpus, figure 37.

FEMALE.—Color and structure as in the male. Epigynum, figure 28.

TYPE LOCALITY.—Male holotype and female allotype from Edinburg, Texas, January 15, 1934 (S. Mulaik). Paratypes from seven miles east of Edinburg, Texas, October 12, 1932 (S. Mulaik). Paratypes from Dallas, Texas, August, 1934 (J. H. Robinson).

This species differs from *Trachelas tranquillus* (Hentz) in having the eyes of the posterior row unequally spaced, the medians being nearer together than their distance from the laterals. The embolus of the male palpus is strongly revolved for two turns and the remaining portion of the tube is much shorter than in *tranquillus*.

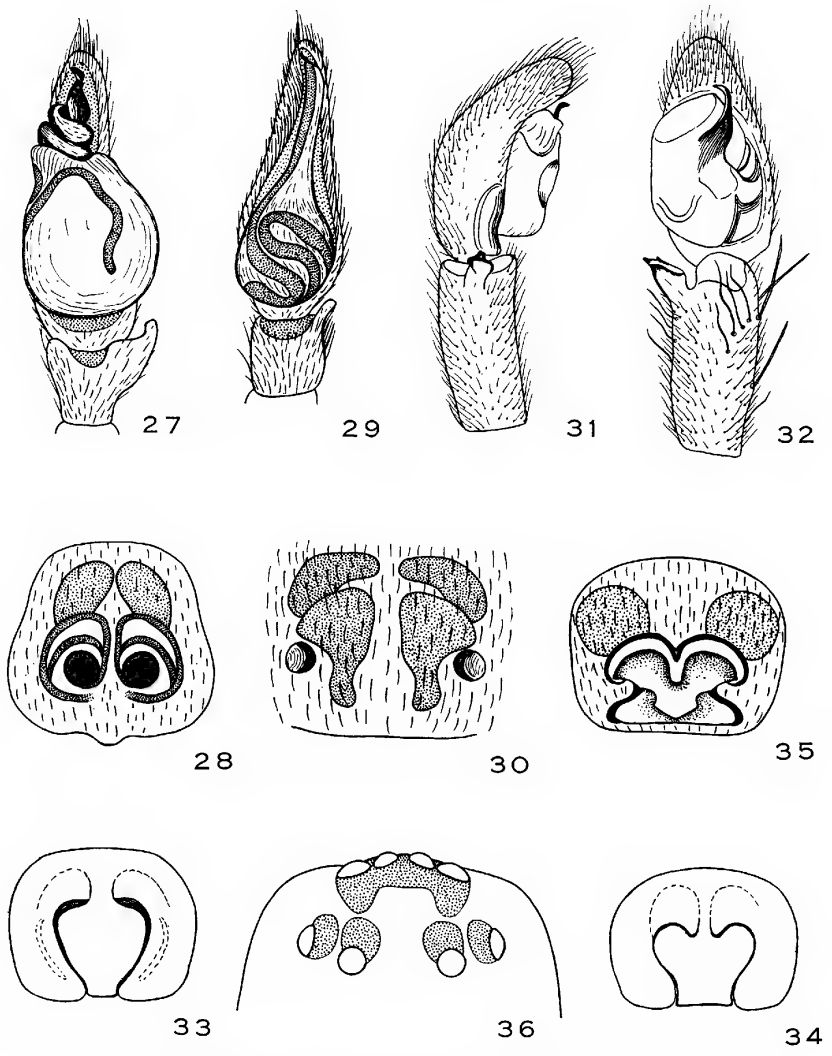

Fig. 27. *Trachelas volutus*, new species, left palpus, ventral view.
Fig. 28. *Trachelas volutus*, new species, epigynum.
Fig. 29. *Mazax peregrina*, new species, left palpus, ventral view.
Fig. 30. *Mazax peregrina*, new species, epigynum.
Fig. 31. *Syrisca affinis* (Banks), right palpus, retrolateral view.
Fig. 32. *Syrisca affinis* (Banks), right palpus, ventral view.
Fig. 33. *Syrisca affinis* (Banks), epigynum.
Fig. 34. *Syrisca insularis* (Lucas), epigynum.
Fig. 35. *Gayennina britcheri*, new species, epigynum.
Fig. 36. *Gayennina britcheri*, new species, eyes, dorsal view.

Mazax O. P. Cambridge

Mazax peregrina, new species

Figures 29 and 30

Male.—Total length, 3.80 mm. Carapace, 1.60 mm. long, 0.97 mm. wide.

Carapace uniform dark reddish-brown, sparsely clothed with inconspicuous black hairs, the eyes ringed with black. Sternum and mouth parts lighter brown, the coxae paler. Legs yellowish brown, the femora of the first two pairs with prolateral dark stripes, the metatarsi of the first and fourth legs darkened. Palpus all brown. Abdomen dark reddish-brown, the dorsum with seven transverse paler stripes.

Carapace much longer than broad, convex, highest just behind the eyes, evenly sloping to the somewhat produced caudal margin, the sutures obsolete. Pars cephalica more than half as broad as the greatest width (25/38). Sternum longer than broad (23/30), pointed behind and separating the coxae by about half their width. Labium broader than long (10/6), half as high as the endites. Abdomen strongly sclerotized, the venter smooth and shining, sparsely provided with hairs, the sides rugose, the dorsum rugose in the anterior half, smoother behind, the roughness due to the tubercular bases from which issue the long black hairs. Base of the abdomen strongly constricted to form a roughened petiole, immediately caudad of which are two robust upright spines. Middle of the abdomen constricted.

Eyes of the first row narrower than the second (53/65), very weakly procurved, the medians separated by two-thirds their diameter, one-half their radius from the equal laterals. Second row of eyes more than three-fourths as broad as the width of the carapace at that point (13/16), very weakly recurved, the medians separated by a diameter, two-thirds as far from the equal laterals. Median ocular quadrangle broader than long (35/28), narrowed in front in the same ratio. Clypeus as high as one and one-fourth times the diameter of an anterior lateral eye. Lower margin of the furrow of the chelicera with two subcontiguous teeth.

Legs 4123, the second and third pairs subequal. Fourth femur with a very strong dorsal spine near the base, the other femora with a weak spine in the same position. First tibia with two submedian pairs of weak ventral spines, the distals lacking. Fourth tibia with a subproximal, median, and distal ventral pair of weak spines. Palpus, figure 29. First leg: femur, 0.95 mm., patella, 0.32 mm., tibia, 0.95 mm., metatarsus, 0.75 mm., tarsus, 0.50 mm. long. Fourth leg: femur, 1.25 mm., patella, 0.43 mm., tibia, 1.20 mm., metatarsus, 1.30 mm., tarsus, 0.60 mm. long.

Female.—Total length, 3.75 mm. Carapace reddish brown, with a few black side streaks and an indistinct triangular black maculation just in front of the dorsal groove. First two legs mainly yellow, the femora darkened at the base, the last two mainly dark brown, the tarsi distally or altogether pale yellow, the other joints with longitudinal dark bands or completely darkened. Abdomen coriaceous, finely punctate, the base of the dorsum with a large oval scutum. Pedicel normal. Structure of carapace and eye relations as in the male. Legs comparatively shorter, the patella and tibia of the fourth pair shorter than the carapace (1.60 mm./1.75 mm.). Length of a female paratype, 4.25 mm.

Type Locality.—Female holotype, male allotype, and paratypes from five miles south of San Juan, Texas, February 22, 1935 (S. Mulaik). Female paratype from Edinburgh, Texas, March 10–15, 1934 (S. Mulaik).

Female paratype from Brownsville, Texas, November 30, 1934 (S. Mulaik).

The females of the Mexican species of *Mazax* have the abdomen pedicellate as in the male and also have the basal scutum provided in front with two robust spines. In the female of *Mazax peregrina* the abdomen is practically normal and the basal scutum completely lacks the strong spines of the other species. The male of *peregrina* differs from *Mazax spinosa* in having transverse pale bands on the dorsum of the abdomen but is virtually identical in structure.

MICARIA Westring

Micaria emertoni, new name

Micaria quinquenotata EMERTON, 1909, Trans. Connecticut Acad. Arts and Sciences, XIV, p. 215, Pl. x, fig. 1. (Not *Micaria quinquenotata* Simon.)

Micaria imperiosa, new species

Figure 37

MALE.—Total length, 5.00 mm. Carapace, 2.65 mm. long, 1.45 mm. wide.

Carapace dark chestnut brown, the midline with an indistinct V-shaped black figure just in front of the dorsal groove from which black streaks go to the posterior eye row. Sides with a few black streaks that originate at the dorsal groove and run to the inconspicuous narrow marginal black seam. Carapace with a few white scales on the sides and a few erect black spines in the eye region. Sternum, mouth parts and coxae dark reddish-brown. Appendages concolorous with the carapace but the joints beyond the femora of the first two pairs of legs paler, the legs with dorsal and lateral stripes of white scales. Dorsum of abdomen mainly black, clothed with metallic scales, the sides with a basal patch of white scales and a larger patch at the constriction of the abdomen. Venter black at the distal end, light brown at the base.

Carapace much longer than broad, convex, highest just behind the eye group and from there evenly sloping to the caudal margin, the pars cephalica broad, two-thirds as wide as the greatest width of the carapace at the second eye row. Sternum longer than broad (50/35), clothed with erect black hairs. Labium longer than broad (8/6). Lower margin of the furrow of the chelicera with a single small tooth. Abdomen twice as long as broad, strongly constricted at the middle.

First row of eyes narrower than the second (16/22), procurved, a line along the dorsal edges of the laterals touches the lower edges of the medians, the median eyes separated by about their radius, half as far from the slightly larger laterals. Second row of eyes half as wide as the width of the head at that point, procurved in the same degree as the first eye row, the medians separated by sightly more than their diameter, a diameter from the subequal laterals. Median ocular quadrangle slightly broader than long (11/10), narrowed in front (8/11), the posterior eyes larger. Clypeus about twice the diameter of an anterior median eye.

Legs 4123, the femora with a single subproximal and a subdistal dorsal spine, the first two legs otherwise unspined, the last two with paired or unpaired spines beneath the tibiae and metatarsi. First two legs with numerous fine black spines beneath.

First leg: femur, 1.92 mm., patella, 0.85 mm., tibia, 1.75 mm., metatarsus, 1.50 mm., tarsus, 1.25 mm. long. Fourth leg: femur, 2.42 mm., patella, 0.90 mm., tibia, 2.08 mm., metatarsus, 2.00 mm., tarsus, 1.30 mm. long. Palpus, figure 37.

TYPE LOCALITY.—Male holotype from five miles east of Dryden, Texas, summer of 1934 (S. Mulaik). Immature paratypes from Sanderson, Texas, July 4, 1934 (S. Mulaik).

This large *Micaria* and the three following species form a group in which the bulb is not provided with a hooked apophysis. The emboli and the tibial apophyses differ in each of the species as shown in the figures.

Micaria altana Gertsch

Figure 38

Micaria altana GERTSCH, 1933, American Museum Novitates, No. 637, p. 6, Fig. 5.

As the male of this species has not as yet been described, a figure of the palpus is included for comparison with *Micaria imperiosa*. The species is now known to occur in Colorado, Utah and Idaho, and in Alberta, Canada.

Micaria foxi Gertsch

Figure 39

Micaria foxi GERTSCH, 1933, American Museum Novitates, No. 637, p. 5, Fig. 2.

In the description of this species and *Micaria utahna* Gertsch the embolus is described as a fine long tube that curves around the prolateral margin of the bulb. As this is not the case, this part of the description and the figures illustrating the emboli are to be considered spurious. Corrected figures are included in this paper. Only the male types of the two species are known.

Micaria utahna Gertsch

Figure 40

Micaria utahna GERTSCH, 1933, American Museum Novitates, No. 637, p. 4, Fig. 1.

Micaria mormon, new species

Figures 41, 42, and 43

MALE.—Total length, 3.16 mm. Carapace, 1.42 mm. long, 1.08 mm. wide.

Carapace and appendages uniform golden-brown. Dorsum of abdomen gray, clothed with iridescent scales, the venter paler.

Carapace longer than broad, convex, highest at the last eye row, sloping slightly caudad to the dorsal groove and then more abruptly to the posterior margin, the dorsum sparsely clothed with short erect black hairs. Pars cephalica rather broad, nearly two thirds as wide at the second eye row as the greatest width (26/34).

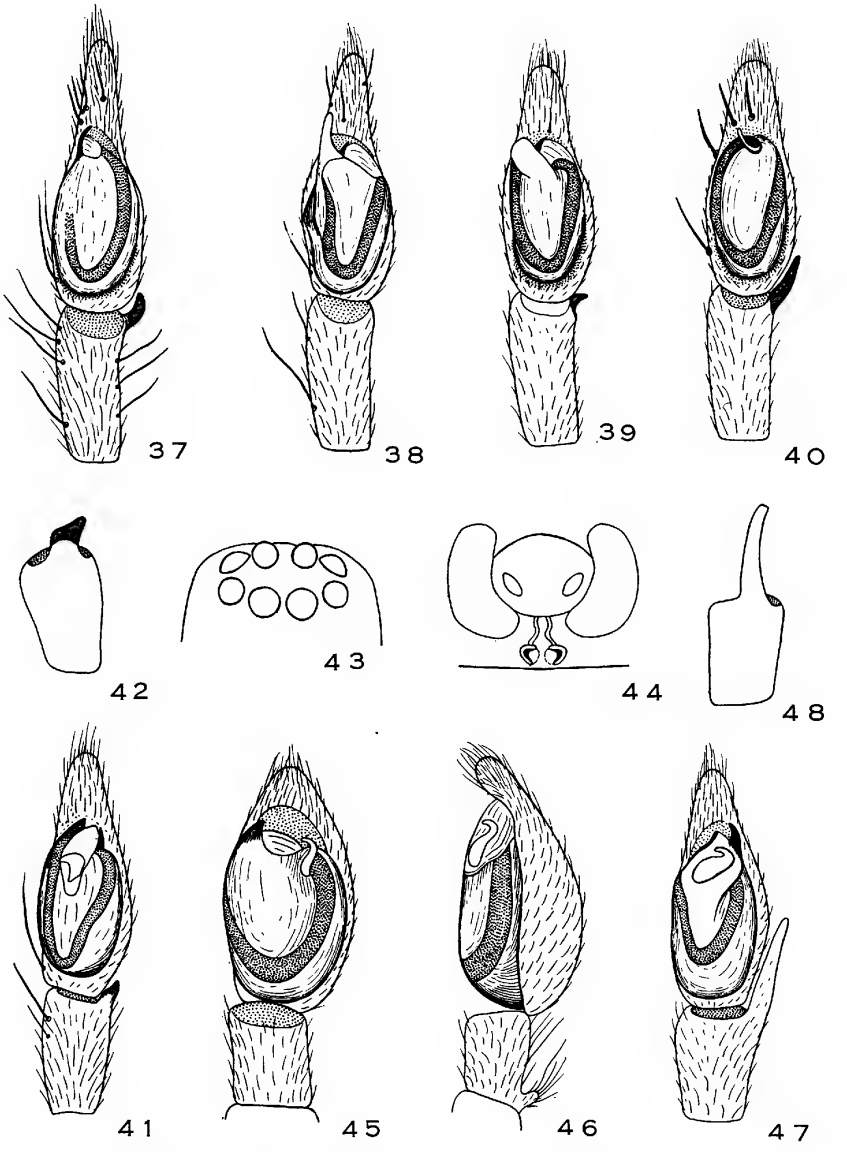

Fig. 37. *Micaria imperiosa*, new species, left palpus, ventral view.
Fig. 38. *Micaria altana* Gertsch, left palpus, ventral view.
Fig. 39. *Micaria foxi* Gertsch, left palpus, ventral view.
Fig. 40. *Micaria utahna* Gertsch, left palpus, ventral view.
Fig. 41. *Micaria mormon*, new species, left palpus, ventral view.
Fig. 42. *Micaria mormon*, new species, tibia of left palpus, retrolateral view.
Fig. 43. *Micaria mormon*, new species, eyes, dorsal view.
Fig. 44. *Micaria triangulosa*, new species, epigynum.
Fig. 45. *Micaria triangulosa*, new species, left palpus, ventral view.
Fig. 46. *Micaria triangulosa*, new species, left palpus, retrolateral view.
Fig. 47. *Micaria nanella*, new species, left palpus, ventral view.
Fig. 48. *Micaria nanella*, new species, tibia of left palpus, retrolateral view.

Sternum slightly longer than broad (11/9). Labium broader than long (10/9). Chelicerae with a single small tooth on the lower margin. Abdomen two-thirds as broad as long (14/9), unconstricted.

Eyes very large for the genus, the first row slightly narrower than the second (11/12), procurved, the medians separated by scarcely a radius, subcontiguous with the slightly smaller laterals. Second row of eyes two-thirds as wide as the head at that point, procurved, the medians separated by one-third their diameter, as far from the slightly smaller lateral eyes. Median ocular quadrangle longer than broad (27/23), as broad in front as behind, the eyes subequal. Clypeus a little more than half as high as the diameter of an anterior lateral eye.

Legs 4123, the first and second femora with a basal spine above, the last two femora with an additional submedian spine. Posterior legs with paired and unpaired spines beneath, the first two pairs unarmed. First leg: femur, 1.40 mm., patella, 0.70 mm., tibia, 1.30 mm., metatarsus, 0.90 mm., tarsus, 0.85 mm. long. Fourth leg: femur, 1.50 mm., patella, 0.62 mm., tibia, 1.35 mm., metatarsus, 1.35 mm., tarsus, 0.85 mm. long. Palpus, figures 41 and 42.

TYPE LOCALITY.—Male holotype from City Creek Canyon, Salt Lake City, Utah, June 14, 1931 (Gertsch).

The unusually large size of all the eyes in this species (Fig. 43) will separate it from any described form. In all other respects it is a typical *Micaria*.

Micaria nanella, new species

Figures 47 and 48

MALE.—Total length, 1.75 mm. Carapace, 0.09 mm. long, 0.60 mm. wide.

Carapace dark brown, somewhat streaked with black, clothed with a few white scales. Sternum, labium, and endites brown, the coxae lighter. Femora of all the legs with lateral dark bands, the other joints yellowish brown. Abdomen black, clothed with metallic scales, with a transverse white maculation at the middle of the dorsum, the venter distally black, dirty white at the center, the base brown.

Carapace longer than broad, strongly convex, highest well behind the eyes, the cephalic and median sutures obsolete. Head broad as in *Micaria laticeps* Emerton, the width at the second eye row three-fourths the greatest width of the carapace (12/17). Sternum longer than broad (7/5). Labium as broad as long. Lower margin of the furrow of the chelicera unarmed. Abdomen with a weak dorsoventral constriction at the middle.

Eyes of the first row narrower than the second (4/3), very weakly procurved, the medians separated by one diameter, subcontiguous with the subequal laterals. Second row of eyes two-thirds the width of the carapace, slightly procurved, the medians separated by one and one-half times their diameter, as far from the equal laterals. Median ocular quadrangle slightly longer than broad (10/9), slightly narrower in front (10/8), the eyes subequal. Clypeus twice as high as the diameter of an anterior lateral eye.

Legs 4123, the first three pairs with a dorsal proximal spine, the last two with an additional median dorsal spine on the femora. Last two legs with very weak, paired spines beneath the tibiae and metatarsi. First leg: femur, 0.51 mm., patella, 0.23

mm., tibia, 0.46 mm., metatarsus, 0.40 mm., tibia, 0.35 mm. long. Fourth leg: femur, 0.67 mm., patella, 0.28 mm., tibia, 0.60 mm., metatarsus. 0.60 mm., tarsus, 0.41 mm. long.

TYPE LOCALITY.—Male holotype from Sanderson, Texas, July 4, 1934 (S. Mulaik). Male paratype from Harlingen, Texas, November 7, 1934 (S. Mulaik).

This tiny species is distinct from *Micaria laticeps* Emerton, which it resembles in the very broad pars cephalica, in the possession of a very long tibial apophysis of the palpus. In the latter character the species resembles *Micaria longispina* Emerton, but the proportions of the tibial apophysis are different and the head in *laticeps* is not so broad.

Micaria triangulosa, new species

Figures 44, 45, and 46

FEMALE.—Total length, 3.50 mm. Carapace, 1.10 mm. long, 0.65 mm. wide.

Carapace uniform bright golden-brown, provided with a few inconspicuous black hairs, the eyes ringed in black. Sternum, mouth parts, and coxae yellowish brown. First two femora dark brown, the remaining joints of those legs white. Last two legs concolorous with the carapace, lined with black. Abdomen black at the distal end and with a submedian transverse black band, the whole dorsum thickly clothed with golden scales, the venter white.

Carapace longer than broad, convex, highest near the middle, gently sloping to the front, evenly sloping caudally to the margin. Sternum longer than broad (25/18). Labium as broad as long. Lower margin of the furrow of the chelicera with a single small tooth. Abdomen twice as long as broad, unconstricted. Epigynum, figure 44.

Eyes of the first row narrower than the second (30/36), procurved, the medians separated by three-fourths their diameter, subcontiguous with the larger laterals. Posterior eye row three-fifths as wide as the carapace at that point, procurved, the median eyes separated by one-half their diameter, as far from the slightly larger lateral eyes. Median ocular quadrangle slightly longer than broad (10/9), narrowed in front (10/8), the posterior eyes slightly larger. Clypeus two-thirds as high as the diameter of an anterior lateral eye.

Legs 4123, all the femora with a single weak proximal spine above. First two legs otherwise unarmed, the last two with weak, paired spines beneath the tibiae and metatarsi. First leg: femur, 0.62 mm., patella, 0.30 mm., tibia, 0.45 mm., metatarsus, 0.45 mm., tarsus, 0.37 mm. long. Fourth leg: femur, 0.80 mm., patella, 0.35 mm., tibia, 0.60 mm., metatarsus, 0.75 mm., tarsus, 0.45 mm. long.

MALE.—Total length, 2.00 mm. Color somewhat darker but pattern and structure as in the female. Palpus, figures 45 and 46.

TYPE LOCALITY.—Male holotype and female allotype from ten miles southeast of Edinburg, Texas, October 20, 1934 (S. Mulaik). Female paratype from northwest of Edinburg, Texas, September 3, 1934 (S. Mulaik). Immature paratypes from Sanderson, Texas, July 4, 1934 (S. Mulaik).

This beautiful little species is closely related to *Micaria aurata* (Hentz) but differs conspicuously in size and in the finer details of the epigynum and palpus. The carapace is not so convex as in *aurata*, the abdomen is unconstricted, and the eyes of the posterior row are much closer together, less than a diameter apart.

ANYPHAENIDAE

GAYENNINA, new genus

First row of eyes straight as seen from in front, slightly recurved as viewed from above, the eyes subcontiguous, the medians slightly smaller. Second row of eyes much broader, procurved, the medians nearer the equal lateral eyes. Median ocular quadrangle as broad as long, greatly narrowed in front. Carapace much broader than long, the pars cephalica half as wide as the greatest width. Chelicerae with two teeth on the lower margin. Sternum and labium longer than broad. Fourth leg longer than the first. First tibiae with three pairs of ventral spines, the metatarsi with a single pair at the base. Tracheal spiracle midway between the epigynum and the spinnerets.

This interesting genus differs from *Gayenna* in having the tracheal spiracle situated midway between the genital furrow and the spinnerets, instead of having it well behind the middle of the abdomen. It agrees with *Gayenna* in having two teeth on the lower cheliceral margin and in the procurved posterior eye row. In *Anyphaena* the lower cheliceral margin is armed with a series of minute teeth and the posterior eye row is straight.

Gayennina britcheri, new species

Figures 35 and 36

FEMALE.—Total length, 5.25 mm. Carapace, 2.50 mm. long, 1.90 mm. wide.

Integument of the cephalothorax light yellowish-brown, clothed with soft white hairs, the clypeal margin with several long black spines. Carapace with three small submarginal brown spots on each side. Eyes ringed with black. Sternum yellow, the mouth parts, coxae and legs darker, without conspicuous markings. Abdomen mainly gray, the dorsum with a narrow reddish-brown longitudinal stripe the full length and inconspicuous narrow side stripes.

Carapace much longer than broad, narrowly rounded on the sides, the front half as broad as the greatest width, rather low, evenly convex, equally high for most of the length, the median longitudinal furrow distinct, located two-thirds of the length back, the cephalic sutures obsolete. Sternum longer than broad (21/15), the sides weakly rounded, caudally narrowly rounded where the fourth coxae are separated by one-third of their width. Labium slightly longer than broad (6/5), half as high as the parallel endites. Chelicerae with two teeth on the lower margin.

Eyes of the first row much narrower than the second (7/11), straight as viewed from in front, the smaller medians separated by one-half their radius, subcontiguous with the laterals. Second row of eyes procurved, the medians separated by two diameters, half as far from the subequal laterals. Median ocular quadrangle as broad as

long, greatly narrowed in front (5/2), the anterior medians much smaller. Quadrangle of the posterior median eyes and the anterior laterals as broad as long, slightly narrower behind than in front, the anterior lateral eyes somewhat larger. Clypeus equal in height to the diameter of an anterior median eye. Eyes, figure 36.

Fourth leg longer than the first, the tibia and metatarsus with three pairs of ventral spines, the distal part of the metatarsus and the tarsus scopulate. Tibia of the first leg with three pairs of ventral spines, the metatarsus with a single basal pair, the metatarsus and tarsus scopulate throughout their length. First leg: femur, 2.00 mm., patella, 0.90 mm., tibia, 1.70 mm., metatarsus, 1.35 mm., tarsus, 0.90 mm. long. Second leg about equal in length. Fourth leg: femur, 2.40 mm., patella, 1.00 mm., tibia, 2.12 mm., metatarsus, 1.90 mm., tarsus, 0.90 mm. long. Epigynum, figure 35.

TYPE LOCALITY.—Female holotype and paratype from Woods Hole, Massachusetts, July 2, 1901 (Britcher).

Miss Bryant has informed me that Mr. Emerton knew this species well but was never able to get a mature specimen for description. Since I have seen an immature female from Michigan in addition to the two examples from Massachusetts it appears that the species is rather widely distributed.

CTENIDAE

Ctenus captiosus, new species

Figures 49, 50, 51, 52, and 53

MALE.—Total length, 15.00 mm. Carapace, 7.44 mm. long, 5.64 mm. wide.

Carapace dark reddish-brown, with a median light stripe as broad as the posterior row that is abruptly narrowed caudad of the middle of the carapace. Sides with an indistinct submarginal light band. Striae outlined in black, the eyes on a black field. Carapace covered with soft gray hairs, the clypeal margin provided with long black spines. Sternum, mouth parts and coxae light brown, the legs somewhat darker, concolorous with the carapace. Dorsum of the abdomen dark gray to black, with a broad, deeply notched median light yellow stripe, the venter paler, with a few black markings but lacking the converging black lines characteristic of *Ctenus hibernalis*.

Carapace longer than broad, the sides well rounded, the head portion three-sevenths as broad as the greatest width. Carapace about equal in height from the eyes to the posterior declivity. Pars cephalica blending well with the thoracic portion, the sutures indistinct, the median longitudinal suture a long deep groove. Sternum longer than broad (41/38), subround, the last coxae scarcely separated at their bases. Labium three-fourths as long as broad, half as high as the endites. Coxae subequal.

Eyes of the first row more than five-sixths as broad as the second row, very strongly recurved, the medians separated by their radius, scarcely a diameter from the smaller laterals which are about a radius from the median eyes of the second row. Eyes of the second row strongly recurved, the medians separated by a radius, a little farther from the subequal laterals. Median ocular quadrangle about as long as broad, considerably narrowed in front, the anterior eyes smaller. As viewed from above the anterior lateral eyes are on a line with the posterior medians, within a radius of the posterior laterals. Eyes, figures 52 and 53. Clypeus a little more than half the

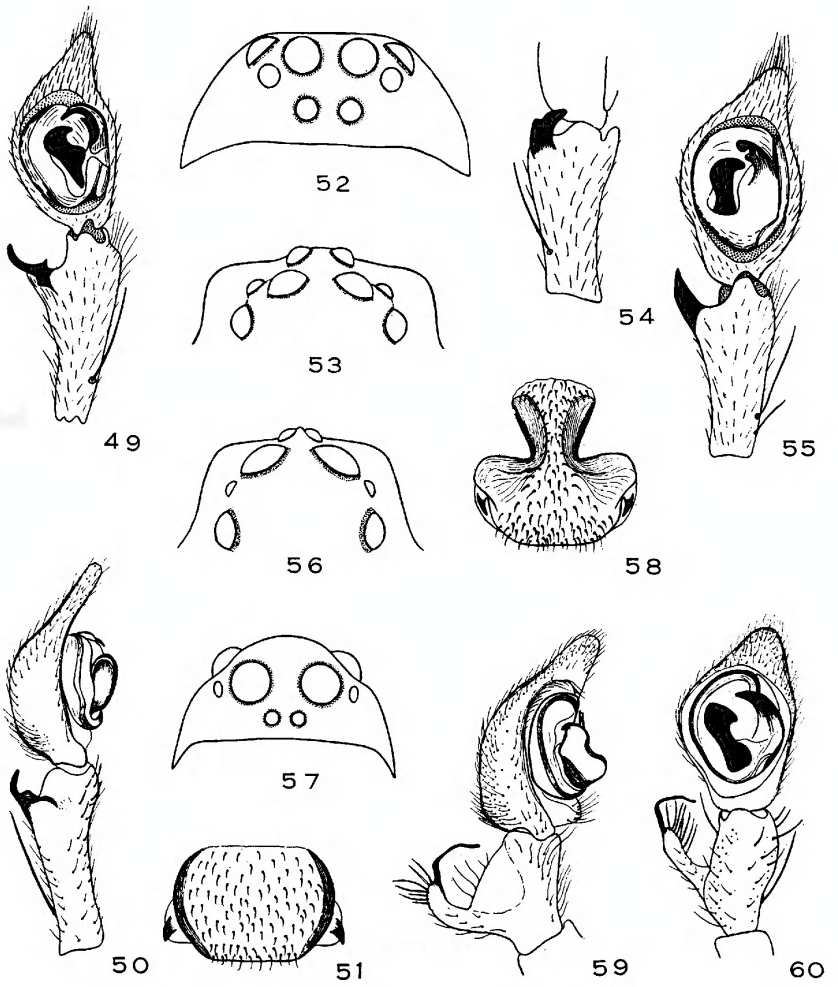

Fig. 49. *Ctenus captiosus*, new species, right palpus, ventral view.
Fig. 50. *Ctenus captiosus*, new species, right palpus, retrolateral view.
Fig. 51. *Ctenus captiosus*, new species, epigynum.
Fig. 52. *Ctenus captiosus*, new species, eyes, frontal view.
Fig. 53. *Ctenus captiosus*, new species, eyes, dorsal view.
Fig. 54. *Ctenus hibernalis* Hentz, tibia of right palpus, retrolateral view.
Fig. 55. *Ctenus hibernalis* Hentz, right palpus, ventral view.
Fig. 56. *Leptoctenus byrrhus* Simon, eyes, dorsal view.
Fig. 57. *Leptoctenus byrrhus* Simon, eyes, frontal view.
Fig. 58. *Leptoctenus byrrhus* Simon, epigynum.
Fig. 59. *Leptoctenus byrrhus* Simon, right palpus, retrolateral view.
Fig. 60. *Leptoctenus byrrhus* Simon, right palpus, ventral view.

diameter of an anterior median eye. Chelicerae armed with five teeth on the lower margin, three on the upper.

First and second tibiae with four pairs, the metatarsi with three pairs of long ventral spines. Third and fourth tibiae and metatarsi with three pairs of ventral spines. Palpus, figures 49 and 50.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	7.86	3.36	7.89	6.76	3.00	28.86 mm.
II	7.11	3.18	6.75	6.36	2.61	26.01 mm.
III	6.36	2.61	5.43	6.00	2.40	22.80 mm.
IV	8.25	3.00	7.50	10.14	3.36	32.25 mm.

Female.—Total length, 18.00 mm. Carapace, 7.25 mm. long. Total length of a female paratype, 22.50 mm.

Color and structure essentially as in the male. Legs proportionately shorter. First leg: femur, 7.35 mm., patella, 3.45 mm., tibia, 7.50 mm., metatarsus, 6.24 mm., tarsus, 2.25 mm. long. Total length, 26.79 mm. Epigynum of an immature female, figure 51. The epigynum of mature females agrees well with that of *Ctenus hibernalis* Hentz.

Type Locality.—Male holotype from Seahorse Island, Levy County, Florida, May 1, 1934 (A. F. Carr). Female allotype from Alachua County, Florida, May 8, 1934 (H. K. Wallace). Male paratype from Gainesville, Florida, February 22, 1933 (H. K. Wallace). Female paratype from Alachua County, Florida, April, 19, 1934 (H. K. Wallace). Immature paratypes from various localities in Alachua and Lake Counties, Florida (H. K. Wallace).

Ctenus hibernalis Hentz

Figures 54 and 55

Ctenus hybernalis Hentz, 1844, Jour. Boston Soc. Nat. Hist., IV, p. 393, Pl. xix, figs. 1–4.

A male of this species from Warrior River, Jefferson County, Alabama, April 1, 1912 (H. H. Smith), kindly sent to me by Dr. C. R. Crosby, is figured for comparison with *Ctenus captiosus*, new species. The species are closely allied structurally but can be separated by the details of the tibial apophyses.

Leptoctenus byrrhus Simon

Figures 56, 57, 58, 59, and 60

Leptoctenus byrrhus Simon, 1888, Ann. Soc. Entom. France, (6) VIII, p. 210.

Ctenus byrrhus F. Cambridge, 1900, 'Biologia Centrali-Americana,' Araneidea, II, p. 113, Pl. viii, fig. 9.

This is a common species in southern Texas, where examples of both sexes have been collected by Mr. Stanley Mulaik. As I am not sure of the generic placement, I have left it in the genus in which it was described. The figures are sufficient to separate it from the other two species.